

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An apparatus, comprising:
a die having a bottom surface;
an embossing foil disposed above the bottom surface;
a mandrel having a rod portion that extends through a central portion of the die, the mandrel to receive a substrate;
a ball bushing disposed around the rod portion;
an outer sleeve disposed around the rod portion and in contact with the embossing foil,
wherein the outer sleeve has a different coefficient of thermal expansion than that of the ball bushing; and
a ring portion disposed between the ball bushing and the embossing foil to hold a precise alignment of a centerline of the rod portion and a centerline of the embossing foil.
2. (Original) The apparatus of claim 1, wherein the mandrel is tapered to receive the substrate having a hole defined by an inner dimensional edge of the substrate.
3. (Currently Amended) The apparatus of claim 2 claim 1, further comprising an wherein
the outer sleeve disposed around the rod portion and in contact with the embossing foil has a
lower coefficient of thermal expansion than that of the ball bushing.
4. (Currently Amended) The apparatus of claim 3 claim 1, wherein a thermal expansion of the ball bushing secures the ring portion to an inner dimension of the embossing foil to center the substrate with the embossing foil.
5. (Currently Amended) The apparatus of claim 3 claim 1, wherein the outer sleeve lifts a center portion of the embossing foil to separate the substrate from the embossing foil.

6. (Original) The apparatus of claim 1, wherein the bottom surface comprises an elastomeric pad.
7. (Original) The apparatus of claim 1, wherein the substrate comprises a disk.
- 8.- 26. (Cancelled)
27. (New) An apparatus, comprising:
a die having a bottom surface;
an embossing foil disposed above the bottom surface;
a mandrel having a rod portion that extends through a central portion of the die, the mandrel to receive a substrate;
a ball bushing disposed around the rod portion;
a ring portion disposed between the ball bushing and the embossing foil to hold a precise alignment of a centerline of the rod portion and a centerline of the embossing foil, wherein a thermal expansion of the ball bushing secures the ring portion to an inner dimension of the embossing foil to center the substrate with the embossing foil.
28. (New) The apparatus of claim 27, wherein the mandrel is tapered to receive the substrate having a hole defined by an inner dimensional edge of the substrate.
29. (New) The apparatus of claim 27, further comprising an outer sleeve disposed around the rod portion and in contact with the embossing foil.
30. (New) The apparatus of claim 29, wherein the outer sleeve lifts a center portion of the embossing foil to separate the substrate from the embossing foil.
31. (New) The apparatus of claim 27, wherein the bottom surface comprises an elastomeric pad.
32. (New) The apparatus of claim 27, wherein the substrate comprises a disk.

33. (New) An apparatus, comprising:
a die having a bottom surface;
an embossing foil disposed above the bottom surface;
a mandrel having a rod portion that extends through a central portion of the die, the mandrel to receive a substrate;
a ball bushing disposed around the rod portion;
an outer sleeve disposed around the rod portion and in contact with the embossing foil;
and
a ring portion disposed between the ball bushing and the embossing foil to hold a precise alignment of a centerline of the rod portion and a centerline of the embossing foil, wherein the outer sleeve is configured to lift a center portion of the embossing foil to separate the substrate from the embossing foil.
34. (New) The apparatus of claim 33, wherein the mandrel is tapered to receive the substrate having a hole defined by an inner dimensional edge of the substrate.
35. (New) The apparatus of claim 33, wherein a thermal expansion of the ball bushing secures the ring portion to an inner dimension of the embossing foil to center the substrate with the embossing foil.
36. (New) The apparatus of claim 33, wherein the bottom surface comprises an elastomeric pad.
37. (New) The apparatus of claim 33, wherein the substrate comprises a disk.